

## ABSTRACT

A common BGP framework is provided to achieve VPN information discovery in network based VPNs using modifications to existing BGP-4 multiprotocol extension path attributes. The 5 framework allow each VPN to implement different OSI layer-2 or layer-3 protocols, and to implement different OSI layer-2 or layer-3 protocols from those used by the backbone of the shared network. The extensions added to BGP-4 apply both to Virtual Router (VR) models of VPN systems and to non-VR models.